



IVANHOE *Master-Lite*

FOR GENERAL AND LOCALIZED  
INDUSTRIAL ILLUMINATION

MILLER ENGINEERED FLUORESCENT LIGHTING

BUILT TO RLM SPECIFICATIONS

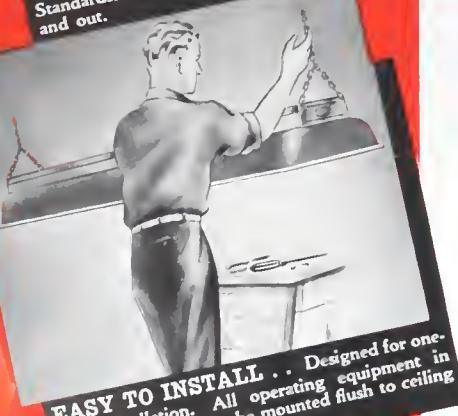
FOR 48 INCH AND 60 INCH MAZDA F LAMPS



# IVANHOE

# *Master-Lite*

**STURDY CONSTRUCTION** . . . Sturdily constructed in accordance with rigid Miller Standards. Reflectors porcelain enameled, inside and out.



**EASY TO INSTALL** . . . Designed for one-man installation. All operating equipment in wiring channel. May be mounted flush to ceiling or suspended.



**COMPLETELY WIRED** . . . Separable wiring channel completely wired with operating auxiliaries, sockets, starters, etc. Easily accessible from below after removing reflector.



**EASY TO CLEAN** . . . The reflector can be completely and conveniently removed without disturbing wiring.

A far better general overhead illumination of production areas than has been heretofore available, is provided by the Ivanhoe RLM Fluorescent Master-Lites. These carefully engineered units conform to RLM Standards Specifications. The 48 inch unit is most generally used in areas with average ceiling heights. The 60 inch unit provides adequate levels of lighting in areas requiring higher mounting and wider spacing. It can also be used to provide higher levels of lighting in areas where conventional mounting and spacing is indicated. The 60 inch unit with apertures in reflector above each lamp is referred to as the RLM Diffuser. These apertures direct light upward to the ceiling to relieve contrast and provide ventilation to insure maximum light output.

**BETTER, FASTER PRODUCTION** . . . the cool daylight of MASTER-LITE acts as a stimulus to workers. It enables them to see important details—as in assembling, finishing, color discrimination, etc.—distinctly, quickly, without eye-strain. This insures fewer errors, better work, and increased output.

**REDUCES AIR CONDITIONING COSTS** . . . Because Fluorescent lamps operate 50% cooler than any other type lamp of the same wattage, the MASTER-LITE offers the additional advantage of a marked reduction in air conditioning costs.

**PUTS PLANTS AT MAXIMUM EFFICIENCY** . . . Converts "dead areas" of floor space into valuable

# FOR GENERAL AND LOCALIZED INDUSTRIAL ILLUMINATION

*For 48 inch and 60 inch Mazda F Lamps*

productive space. Increases production efficiency. Provides better working conditions. Gives plants a smarter, more modern appearance. And — with proper Miller engineering counsel — cuts lighting costs. These are the special benefits the IVANHOE MASTER-LITES provide.

**MASTER-LITES** are carefully engineered to RLM Standards specifications and carry the RLM label. Designed for general and localized industrial lighting. Light source is adequately shielded by reflector which has a 13 to 14 degree shielding angle from horizontal, as required by RLM standards specifications. Closed ends further shield lamps from direct view.

**MASTER-LITES** are sturdily constructed in accordance with rigid Miller standards. Durable one-piece steel reflectors are porcelain enameled, inside and out. Finished steel-gray enamel outside — with the highly efficient IVANHOE reflecting white inside which has a reflection factor of 79%.

**MASTER-LITES** are completely wired — have separable wiring channels with operating auxiliaries, sockets, starters, etc. Reflector attaches easily with two screws. When reflector is removed, all wiring is exposed from below. Removable starter switches located in sockets are readily accessible.



**MASTER-LITES** are easy to install. May be mounted flush or suspended. Eyelets in end castings for wire or chain supports. Master-Lites 248 and 348 have two  $\frac{1}{2}$  inch reinforced knockouts in top on 28 inch centers and Master-Lite 260 has two  $\frac{1}{2}$  inch knockouts in top on 36 inch centers for use if conduit mounting is desired. A porcelain bushing is supplied for use in one knockout opening to wire for chain mounting.

**MASTER-LITES** have a completely removable, wire-free reflector. Thus, reflector's ease of cleaning becomes a guarantee of maximum lighting efficiency at all times. No temptation of maintenance men to avoid a cleaning chore — a twist of two screws and the reflector is completely free. Can be thoroughly washed and replaced in a jiffy. Reserves may even be carried in stock to insure uninterrupted lighting during cleaning.

# IVANHOE

## Master-Lite

HAS COMPLETELY WIRED CHANNEL WITH REMOVABLE REFLECTOR . . .

. . . Simplifies Installation and Maintenance

Eyelets for rod,  
chain or wire sus-  
pension mounting.

Knock-outs for con-  
duit suspension  
mounting.

Channel of the  
MASTER-LITE is  
completely wired  
with operating aux-  
iliaries, sockets, etc.  
Operating equip-  
ment is easily acces-  
sible from below  
after removing re-  
flector.

Durably constructed  
one-piece reflector  
attaches or de-  
taches from channel  
easily and quickly  
without disturbing  
wiring.

Renewable starters  
protrude through  
reflectors. Only a  
slight turn is re-  
quired to insert or  
remove.

MASTER-LITE RLM DIFFUSER HAS APERTURES  
IN TOP OF REFLECTOR ABOVE EACH LAMP



# Master-Lite

**RLM-248**

 FOR TWO 48 INCH  
 40 WATT MAZDA F LAMPS

**Underwriters' Inspected**

Catalog Number	Retail Price	Delivery Code	Lamp Watts	Line Voltage	Power Factor	Length	Width	Depth	Suspension Fitting	Qty.	STD. Wt. Lbs.	PKG. Approx.
CPEDD 248-110	\$26.50	B	2-40	110-125	95-100%	52 1/2	13	7 1/4	*	1	30	
CPEDD 248-220	26.50	B	2-40	220-250	95-100%	52 1/2	13	7 1/4	*	1	30	

PRICES COVER FIXTURES WIRED COMPLETE WITH TULAMP REACTOR AND STARTING COMPENSATOR OPERATING AT POWER FACTOR OF 95% OR ABOVE BUT DO NOT INCLUDE LAMPS.

For 199-216 volt operation, units are supplied on special order. Specify in ordering as CPEDD 248-208, etc. Approximate total wattage including auxiliaries 100 watts.

\* These units are standard for chain pendant mounting but have two  $\frac{1}{2}$  inch knockouts for use if conduit mounting is desired. Distance between conduit knockouts is 28 inches. Standard for 60 cycle AC circuits.

**ILLUMINATION PERFORMANCE IN VARIOUS SIZE ROOM AREAS**

Data given below is based on White Mazda F Lamps, rated output 2100 lumens per lamp, and maintenance factor of .75. Multiply data values by .86 where Daylight Lamps are used. Range covers variation in wall and ceiling finishes of room area.

Mounting Height-Ft.			5 - 6 1/2			6 1/2 - 8			8 - 10																	
Area per Unit-Sq. Ft.			25	50	75	100	25	50	75	100	25	50	75	100												
Room			F O O T C A N D L E S																							
Width-Ft. Lghth.-Ft.																										
8-12																										
8-12	8-14	61-54	30-27	20-18	15-14	56-49	28-24	18-16	14-12	47-39	23-20	16-13	12-10													
	14-20	66-59	33-29	22-20	16-15	61-54	30-27	20-18	15-13	47-39	23-20	16-13	12-10													
	20-42	72-62	36-31	24-21	18-15	66-59	33-29	22-20	16-15	57-50	29-25	19-17	14-13													
	42-UP	74-67	37-33	25-22	18-17	69-62	35-31	23-21	17-15	62-55	31-28	21-19	16-14													
12-20																										
12-20	14-20	70-63	35-31	23-21	17-16	66-59	33-29	22-20	16-15	58-52	29-26	19-17	14-13													
	20-42	76-69	38-35	25-23	19-17	72-64	36-32	24-21	18-16	64-58	32-29	21-19	16-14													
	42-90	79-73	40-36	26-24	20-18	77-70	38-35	26-23	19-17	71-63	35-32	24-21	18-16													
	90-UP	83-77	42-38	28-26	21-19	79-73	40-36	26-24	20-18	74-67	37-33	25-22	19-17													
20-50																										
20-50	30-60	86-79	43-40	29-26	21-20	83-77	42-38	28-26	21-19	78-72	39-36	26-24	20-18													
	60-90	88-82	44-41	29-27	22-21	85-79	43-39	28-26	21-20	81-75	41-37	27-25	20-19													
	90-150	89-83	45-42	30-28	22-21	86-79	43-40	29-26	21-20	82-76	41-38	27-25	20-19													
	150-UP	89-83	45-41	30-27	22-20	86-79	43-40	29-26	21-20	82-76	41-38	27-25	20-19													
50-UP																										
50-UP	60-90	93-86	47-43	31-29	23-21	92-85	46-42	31-28	23-21	90-83	45-42	30-28	23-21													
	90-140	93-86	47-43	31-29	23-21	92-85	46-42	31-28	23-21	90-83	45-42	30-28	23-21													
	140-200	93-86	47-43	31-29	23-21	92-85	46-42	31-28	23-21	90-83	45-42	30-28	23-21													
	200-UP	93-86	47-43	31-29	23-21	92-85	46-42	31-28	23-21	90-83	45-42	30-28	23-21													

**INSTALLATION ON EXISTING OUTLETS**

Measure room length, width, ceiling height and area per outlet. Select a mounting height of fixture so the spacing mounting ratio does not exceed  $1\frac{1}{2}$ . Expected maintained illumination will be found in column of selected mounting height under area per outlet opposite corresponding Room Dimension. Illumination of areas per outlet between those listed can be estimated by comparison with values shown.

**INSTALLATION ON NEW OUTLETS**

Measure room length, width, ceiling height. Determine illumination recommended for nature of work. Select a mounting height suitable for the nature of the work and the desired illumination. Locate the desired illumination opposite the room dimensions under the selected mounting height. This determines the area per outlet. From area per outlet, establish outlet spacing so that spacing mounting ratio does not exceed  $1\frac{1}{2}$  for uniform illumination.

\* Mounting height above working plane.

# Master-Lite

FOR THREE 48 INCH  
40 WATT MAZDA F LAMPS

**RLM-348**



Underwriters' Inspected  
**Schedule IC, F.O.B. Meriden, Conn.**

Catalog Number	Retail Price	Delivery Code	Lamp Watts	Line Voltage	Power Factor	Length	Width	Depth	Suspension Fitting	STD. Qty.	PKG. Wt. Lbs.
CPEDD 348-110	\$34.75	B	3-40	110-125	95-100%	52 1/2	13	7 1/4	*	1	35
CPEDD 348-220	\$33.25	B	3-40	220-250	95-100%	52 1/2	13	7 1/4	*	1	35

**PRICES COVER FIXTURES WIRED COMPLETE WITH ONE TULAMP AND ONE SINGLE REACTOR AND STARTING COMPENSATOR OPERATING AT POWER FACTOR OF 95% OR ABOVE BUT DO NOT INCLUDE LAMPS.**

For 199-216 volt operation, units are supplied on special order. Specify in ordering as CPEDD 348-208, etc. Approximate total wattage including auxiliaries 150 watts.

\* These units are standard for chain pendant mounting but have two  $\frac{1}{2}$  inch knockouts for use if conduit mounting is desired. Distance between conduit knockouts is 28 inches. Standard for 60 cycle AC currents.

## ILLUMINATION PERFORMANCE IN VARIOUS SIZE ROOM AREAS

Data given below is based on White Mazda F Lamps, rated output 2100 lumens per lamp, and maintenance factor of .75. Multiply data values by .86 where Daylight Lamps are used. Range covers variation in wall and ceiling finishes of room area.

*Mounting Height-Ft.		6 - 8			8 - 10			10 - 12			
Area per Unit-Sq. Ft.		25	50	75	100	25	50	75	100	25	50
Room		F O O T C A N D L E S									
Width-Ft.	Lgth.-Ft.	8-14	84-74	42-36	27-24	21-18	71-59	35-30	24-20	18-15	67-56
8-12	14-20	92-81	45-41	30-27	23-20	71-59	35-30	24-20	18-15	67-56	33-27
	20-42	99-89	50-44	33-30	24-23	86-75	44-38	29-26	21-20	70-60	35-30
	42-UP	104-93	53-47	35-32	26-23	93-83	47-42	32-29	24-21	79-70	40-35
	14-20	99-89	50-44	33-30	24-23	87-78	44-39	29-26	21-20	72-61	36-31
12-20	20-42	108-96	54-48	36-32	27-24	96-87	48-44	32-29	24-21	83-74	42-37
	42-90	115-105	57-54	39-35	29-26	107-95	53-48	36-32	27-24	94-84	47-42
	90-UP	118-109	60-54	39-36	30-27	111-101	56-50	37-33	29-26	103-92	51-46
	14-20	99-89	50-44	33-30	24-23	87-78	44-39	29-26	21-20	72-61	36-31
20-50	30-60	124-115	63-57	42-39	32-29	117-108	59-54	39-36	30-27	104-93	52-46
	60-90	127-118	65-59	42-39	32-30	122-113	62-56	41-37	30-29	112-103	56-51
	90-150	129-118	65-60	44-39	32-30	123-114	62-57	41-37	30-29	113-104	57-52
	150-UP	129-118	65-60	44-39	32-30	123-114	62-57	41-37	30-29	113-104	57-52
50-UP	60-90	138-127	69-63	47-42	35-32	135-125	68-63	45-42	35-32	124-115	62-58
	90-140	138-127	69-63	47-42	35-32	135-125	68-63	45-42	35-32	126-117	63-58
	140-200	138-127	69-63	47-42	35-32	135-125	68-63	45-42	35-32	126-117	63-58
	200-UP	138-127	69-63	47-42	35-32	135-125	68-63	45-42	35-32	126-117	63-58

### INSTALLATION ON EXISTING OUTLETS

Measure room length, width, ceiling height and area per outlet. Select a mounting height of fixture so the spacing mounting ratio does not exceed  $1\frac{1}{2}$ . Expected maintained illumination will be found in column of selected mounting height under area per outlet opposite corresponding Room Dimension. Illumination of areas per outlet between those listed can be estimated by comparison with values shown.

### INSTALLATION ON NEW OUTLETS

Measure room length, width, ceiling height. Determine illumination recommended for nature of work. Select a mounting height suitable for the nature of the work and the desired illumination. Locate the desired illumination opposite the room dimensions under the selected mounting height. This determines the area per outlet. From area per outlet, establish outlet spacing so that spacing mounting ratio does not exceed  $1\frac{1}{2}$  for uniform illumination.

\* Mounting height above working plane.

# Master-Lite

... FOR TWO 60 INCH  
100 WATT  
MAZDA F LAMPS

**RLM-260**



Underwriters' Inspected

Schedule 1C, F.O.B. Meriden, Conn.

Catalog Number	Retail Price	Delivery Code	Lamp Watts	Line Voltage	Power Factor	Dimensions-Inches			Suspension Fitting	Std. Qty.	Pkg. Wt., Lbs.	Approx.
						Length	Width	Depth				
CPEDD 260-110	\$43.50	C	2-100	110-125	95-100%	65 1/4	16	8 1/2	*	1	48	
CPEDD 260-220	43.50	C	2-100	220-250	95-100%	65 1/4	16	8 1/2	*	1	48	

**PRICES COVER FIXTURES WIRED COMPLETE WITH TULAMP REACTOR AND STARTING COMPENSATOR OPERATING AT POWER FACTOR OF 95% OR ABOVE BUT DO NOT INCLUDE LAMPS.**

For 199-216 volt operation, units are supplied on special order. Specify in ordering as CPEDD 260-208, etc. Approximate total wattage including auxiliaries 235 watts.

\* These units are standard for chain pendant mounting but have two  $\frac{3}{8}$  inch knockouts for use if conduit mounting is desired. Distance between conduit knockouts is 36 inches. Standard for 60 cycle AC circuits.

## ILLUMINATION PERFORMANCE IN VARIOUS SIZE ROOM AREAS

Data given below is based on White Mazda F Lamps, rated output 4200 lumens per lamp, and maintenance factor of .75. Multiply data values by .86 where Daylight Lamps are used. Range covers variation in wall and ceiling finishes of room area.

Mounting Height-Ft.		10 - 13				14 - 17				18 - 21					
Area per Unit-Sq. Ft.		50	75	100	125	25	50	75	100	125	25	50	75	100	125
Room															
Width-Ft. Lgth.-Ft.		F O O T C A N D L E S													
12-20	14-20	45-36	30-24	23-18	18-14	81-62	41-31	27-20	20-15	16-12	.....	.....	.....	.....	.....
	20-42	53-45	35-30	26-22	21-18	86-66	43-33	28-22	21-16	17-13	81-62	41-31	27-20	20-15	16-12
	42-90	58-51	39-34	29-26	24-20	101-81	50-41	33-27	25-20	20-16	90-73	45-36	30-24	23-18	18-14
	90-UP	63-54	42-36	31-27	25-22	108-92	54-46	36-31	27-23	22-18	101-81	51-41	34-27	25-20	20-16
20-50	30-60	63-54	42-36	31-27	25-22	110-95	55-47	36-31	27-24	22-19	101-81	51-41	34-27	25-20	20-16
	60-90	67-60	45-39	33-30	27-24	121-106	60-53	40-35	30-26	24-21	110-95	55-57	36-31	27-24	22-19
	90-150	69-63	46-42	35-31	28-25	128-110	64-55	42-36	32-27	26-22	119-103	60-52	39-34	30-26	24-21
	150-UP	70-64	47-42	35-32	28-26	130-112	65-56	44-37	32-28	26-22	123-107	62-54	41-35	31-27	25-21
50-UP	60-90	74-67	49-45	37-33	30-27	136-123	68-62	45-41	34-31	27-25	131-112	65-56	43-37	32-28	26-22
	90-140	76-68	50-45	38-34	30-27	147-132	74-66	49-44	37-33	30-26	136-123	68-62	45-41	34-31	27-25
	140-200	77-69	51-46	38-35	31-28	147-132	74-66	49-44	37-33	30-26	143-128	71-64	47-42	36-32	29-26
	200-UP	77-69	51-46	38-35	31-28	147-132	74-66	49-44	37-33	30-26	145-129	72-65	47-43	36-32	29-26

### INSTALLATION ON EXISTING OUTLETS

Measure room length, width, ceiling height and area per outlet. Select a mounting height of fixture so the spacing mounting ratio does not exceed  $1\frac{1}{2}$ . Expected maintained illumination will be found in column of selected mounting height under area per outlet opposite corresponding Room Dimension. Illumination of areas per outlet between those listed can be estimated by comparison with values shown.

### INSTALLATION ON NEW OUTLETS

Measure room length, width, ceiling height. Determine illumination recommended for nature of work. Select a mounting height suitable for the nature of the work and the desired illumination. Locate the desired illumination opposite the room dimensions under the selected mounting height. This determines the area per outlet. From area per outlet, establish outlet spacing so that spacing mounting ratio does not exceed  $1\frac{1}{2}$  for uniform illumination.

\* Mounting height above working plane.

# Master-Lite

... FOR TWO 60 INCH  
100 WATT MAZDA F LAMPS

**RLM DIFFUSER  
-260**



Underwriters' Inspected  
Schedule 1C, F.O.B. Meriden, Conn.

## HAS APERTURES IN TOP OF REFLECTOR ABOVE EACH LAMP

Catalog Number	Retail Price	Delivery Code	Lamp Watts	Line Voltage	Power Factor	Dimensions-Inches			STD. PKG. Qty.	Approx. Wt. Lbs.
CPEDF 260-110	\$44.50	C	2-100	110-125	95-100%	65 1/4	16	8 1/2	*	1 48
CPEDF 260-220	44.50	C	2-100	220-250	95-100%	65 1/4	16	8 1/2	*	1 48

PRICES COVER FIXTURES WIRED COMPLETE WITH TULAMP REACTOR AND STARTING COMPENSATOR OPERATING AT POWER FACTOR OF 95% OR ABOVE BUT DO NOT INCLUDE LAMPS.

For 199-216 volt operation, units are supplied on special order. Specify in ordering as CPEDF 260-208, etc. Approximate total wattage including auxiliaries 235 watts.

\* These units are standard for chain pendant mounting but have two 1/2 inch knockouts for use if conduit mounting is desired. Distance between conduit knockouts is 36 inches. Standard for 60 cycle AC circuits.

## ILLUMINATION PERFORMANCE IN VARIOUS SIZE ROOM AREAS

Data given below is based on White Mazda F Lamps, rated output 4200 lumens per lamp, and maintenance factor of .75. Multiply data values by .86 where Daylight Lamps are used. Range covers variation in wall and ceiling finishes of room area.

Mounting Height-Ft.		10 - 13				14 - 17				18 - 21					
Area per Unit-Sq. Ft.		50	75	100	125	25	50	75	100	125	25	50	75	100	125
Room		F O O T C A N D L E S													
Width-Ft. Lghth.-Ft.															
12-20		14-20	45-36	30-24	23-18	18-14	81-62	41-31	27-20	20-15	16-12				
12-20		20-42	53-45	35-30	26-22	21-18	86-66	43-33	28-22	21-16	17-13	81-62	41-31	27-20	20-15
12-20		42-90	58-51	39-34	29-26	24-20	101-81	50-41	33-27	25-20	20-16	90-73	45-36	30-24	23-18
90-UP		63-54	42-36	31-27	25-22	108-92	54-46	36-31	27-23	22-18	101-81	51-41	34-27	25-20	20-16
20-50		30-60	63-54	42-36	31-27	25-22	110-95	55-47	36-31	27-24	22-19	101-81	51-41	34-27	25-20
20-50		60-90	67-60	45-39	33-30	27-24	121-106	60-53	40-35	30-26	21-21	110-95	55-57	36-31	27-24
20-50		90-150	69-63	46-42	35-31	28-25	128-110	64-55	42-36	32-27	26-22	119-103	60-52	39-34	30-26
20-50		150-UP	70-64	47-42	35-32	28-26	130-112	65-56	44-37	32-28	26-22	123-107	62-54	41-35	31-27
50-1P		60-90	74-67	49-45	37-33	30-27	136-123	68-62	45-41	34-31	27-25	131-112	65-56	43-37	32-28
50-1P		90-140	76-68	50-45	38-34	30-27	147-132	74-66	49-44	37-33	30-26	136-123	68-62	45-41	34-31
50-1P		140-200	77-69	51-46	38-35	31-28	147-132	74-66	49-44	37-33	30-26	143-128	71-64	47-42	36-32
50-1P		200-UP	77-69	51-46	38-35	31-28	147-132	74-66	49-44	37-33	30-26	145-129	72-65	47-43	36-32

### INSTALLATION ON EXISTING OUTLETS

Measure room length, width, ceiling height and area per outlet. Select a mounting height of fixture so the spacing mounting ratio does not exceed 1 1/2. Expected maintained illumination will be found in column of selected mounting height under area per outlet opposite corresponding Room Dimension. Illumination of areas per outlet between those listed can be estimated by comparison with values shown.

### INSTALLATION ON NEW OUTLETS

Measure room length, width, ceiling height. Determine illumination recommended for nature of work. Select a mounting height suitable for the nature of the work and the desired illumination. Locate the desired illumination opposite the room dimensions under the selected mounting height. This determines the area per outlet. From area per outlet, establish outlet spacing so that spacing mounting ratio does not exceed 1 1/2 for uniform illumination.

\* Mounting height above working plane.

**THE MILLER COMPANY, Meriden, Conn.**